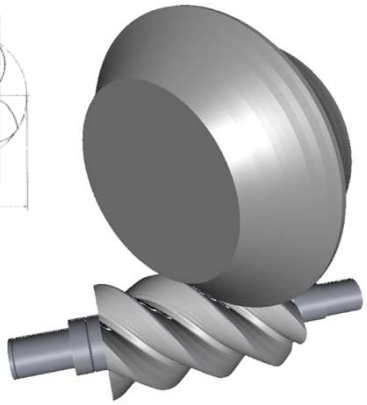
Application Data Sheet

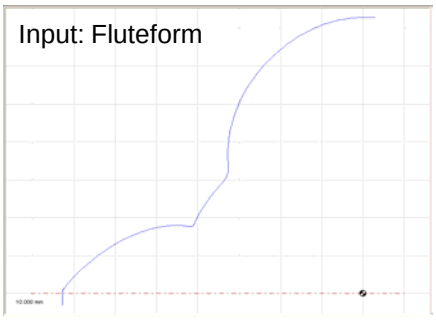
SCHNEEBERGER

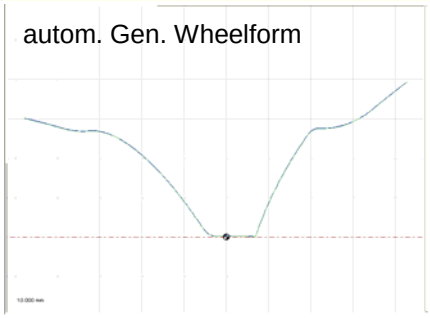
Compressor Rotor Ø145 Z4

A40-800



The 40 kW Spindle of the CORVUS C500 is very well adapted to this grinding application using full form wheels of large diameters. Material removal in Pregrinding is 0.03 mm per pass, total removal 0.1 - 0.2 mm. For finishing 2 passes with partial increment of 0.005 mm are executed. The required wheel form is automatically generated from geometrical input, where the the flute form is given as a DXF-file. After grinding a probe process can be attached to verify the form on specifically defined points along the DXF of the fluteform.





1. Cycletime for Production

Workpiece: Ø 145 mm, Z 4, Length 225 mm, Helix 271 mm Material GGS					
Operations	 Probe	 Dress	 Flute pregr	 Dress	 Flute fin
Feed [mm/Min]	2000	150	1000	150	1000
Power [kW]		3	25	3	20
Cutting speed [m/s]		34	34	34	34
Used wheels		 1	 1	 1	 1
Grinding time [s]	25	144	868	144	347
Total cycle time	25 Min 28				

The cycle times are indicative. Material to be ground, grinding wheels, coolants can influence the cycle times considerably.

2. Used Grinding Wheels

1	DXF Ø450-500 C80

1

3. Machine and Software Requirements

Machines:	5 axes CNC grinders : CORVUS C500	Coolant:	Synthetic Oil, pressure 16 bar
Control:	Fanuc 31i	Software:	Quinto 5
Accessories:	Dressing Unit		

Responsible engineer: OP, 4.1.2012

www.schneeberger.ch
J. SCHNEEBERGER Maschinen AG 4914 Roggwil Switzerland
Subsidiaries in: France, Deutschland, Italia, United States, China

TECHNOLOGY FOR TOOLING